

WHAT IS CLAIMED

- Sub 2
1. A method of assembling a composite image, comprising:  
generating three-dimensional data defining a non-stereo image;  
assigning a first screen portion to a first rendering node;  
assigning a second screen portion to a second rendering node;  
rendering, by the first rendering node, a left image portion from the three-dimensional data;  
rendering, by the second rendering node, a right image portion from the three-dimensional data; and  
sequentially assembling the left image portion and the right image portion into the composite image.
  2. The method according to claim 1, wherein generating three-dimensional data defining a non-stereo image further comprises generating three-dimensional data comprising RGB data and depth data defining the non-stereo image.
  3. The method according to claim 1, wherein assigning a second screen portion to a second rendering node further comprises assigning, at an offset from the first screen portion, the second screen portion to the second rendering node.
  4. The method according to claim 3, wherein assigning the second screen portion at an offset from the first screen portion further comprises assigning the second screen portion at an x-axis offset and a y-axis offset from the first screen portion.
  5. The method according to claim 1, further comprising generating two-dimensional data defining a window in which the composite image is to be rendered.

6. A node of a network for rendering a three-dimensional image, comprising:

a processing element; and

a memory module maintaining a stereo transform application executable by the processing element, the stereo transform application operable to receive three-dimensional data defining a non-stereo image, process the three-dimensional data and provide output of at least one of a left channel image and a right channel image of a composite image comprised of the left channel image and the right channel image.

7. The node according to claim 6, further comprising pipeline hardware operable to transmit the output to a compositing node operable to assemble the output with an output from another node into a composite image.

8. The node according to claim 6, wherein the three-dimensional data defining the non-stereo image comprises RGB data and depth data associated therewith.

9. The node according to claim 6, wherein the memory module further maintains an application programmer's interface layer in communication with the stereo transform application, the three-dimensional data provided to the stereo transform application via the application programmer's interface.

10. The node according to claim 9, wherein the application programmer's interface comprises an instance of an OpenGL protocol layer.

11. The node according to claim 6, wherein the memory module further maintains an application that controls a bitmap display that receives and processes two-dimensional data associated with the three-dimensional data.

12. The node according to claim 11, wherein the application that controls a bitmap display is an instance of X server executable by the processing element.

13. A network for rendering a three-dimensional composite stereo image, comprising:

a first and second rendering node each respectively comprising a first and second processing element and a first and second memory module maintaining a respective instance of a stereo transform application executable by the first and second processing element, each instance of the stereo transform application operable to receive data defining a three-dimensional non-stereo image, perform a transform on the three-dimensional non-stereo image and output at least one of a left channel image and a right channel image; and

a compositor node operable to receive a respective first data stream and a second data stream from the first and second rendering nodes, the first data stream comprising one of the left channel image and the right channel image output from the instance of the stereo transform application maintained by the first rendering node, the second data stream comprising one of the left channel image and the right channel image output from the instance of the stereo transform application maintained by the second rendering node, the compositor node operable to assemble the first data stream and the second data stream into a composite three-dimensional stereo image.

14. The network according to claim 13, further comprising a master node running an instance of a non-stereo graphics application, the master node operable to provide the data defining the three-dimensional non-stereo image to each of the first and second rendering nodes.

15. The network according to claim 13, wherein the left channel image and the right channel image are assigned to respective portions of the composite image.

16. The network according to claim 15, wherein the left channel image and the right channel image are offset by an x-axis offset and a y-axis offset.

17. The network according to claim 13, further comprising a remote node, the compositor node operable to transmit the composite image to the remote node.

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